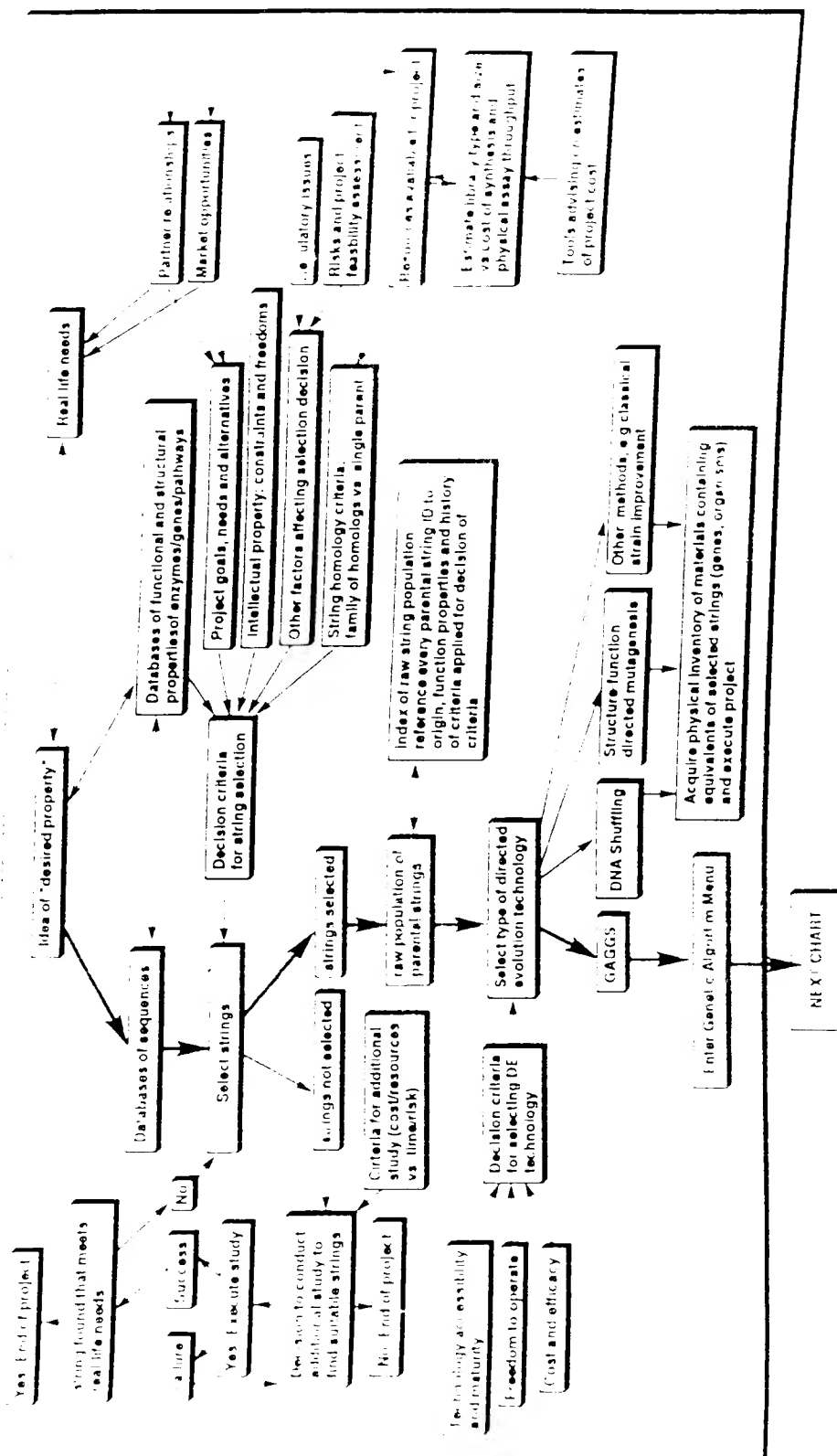


Figure 1



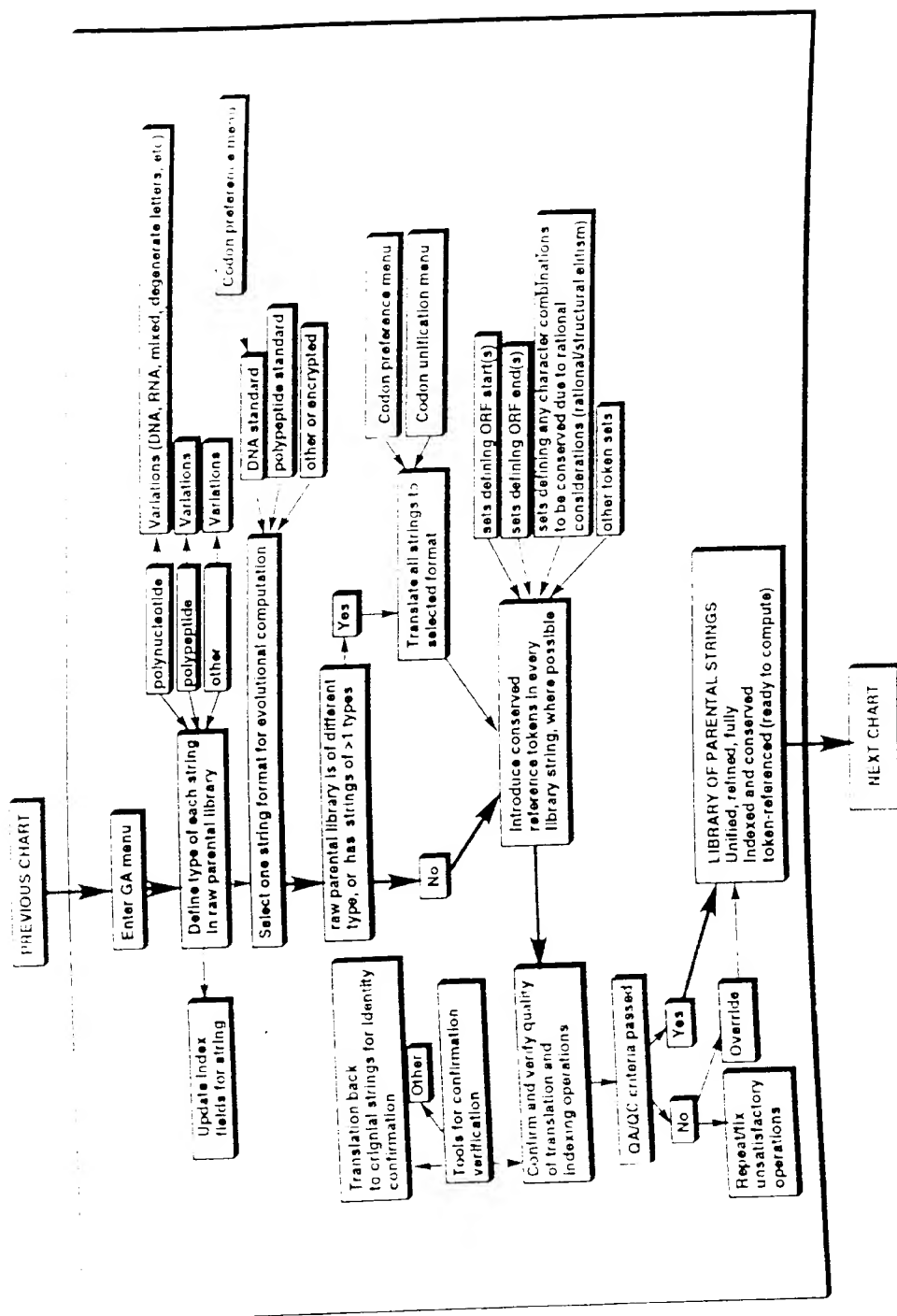
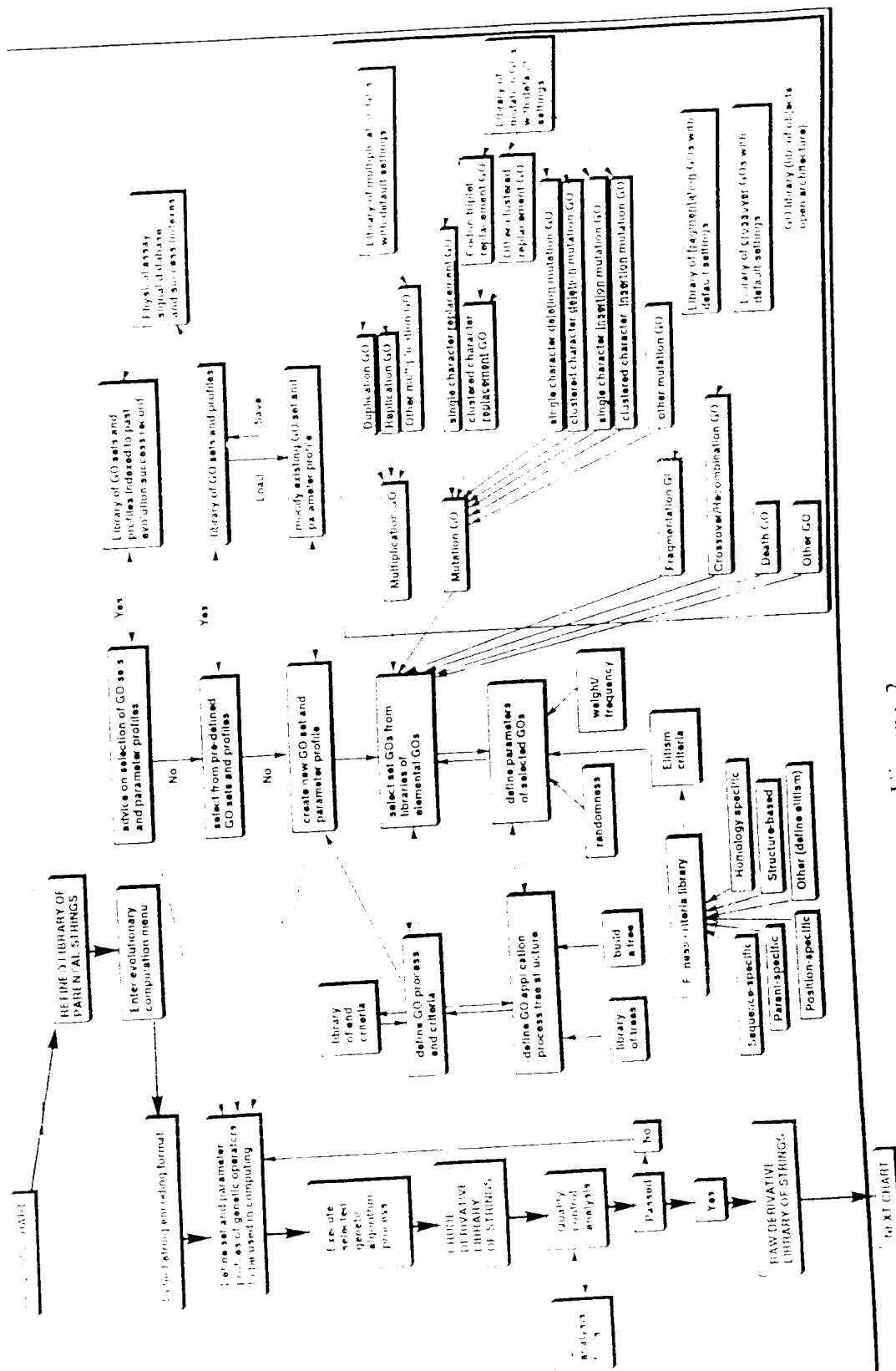


Figure 2



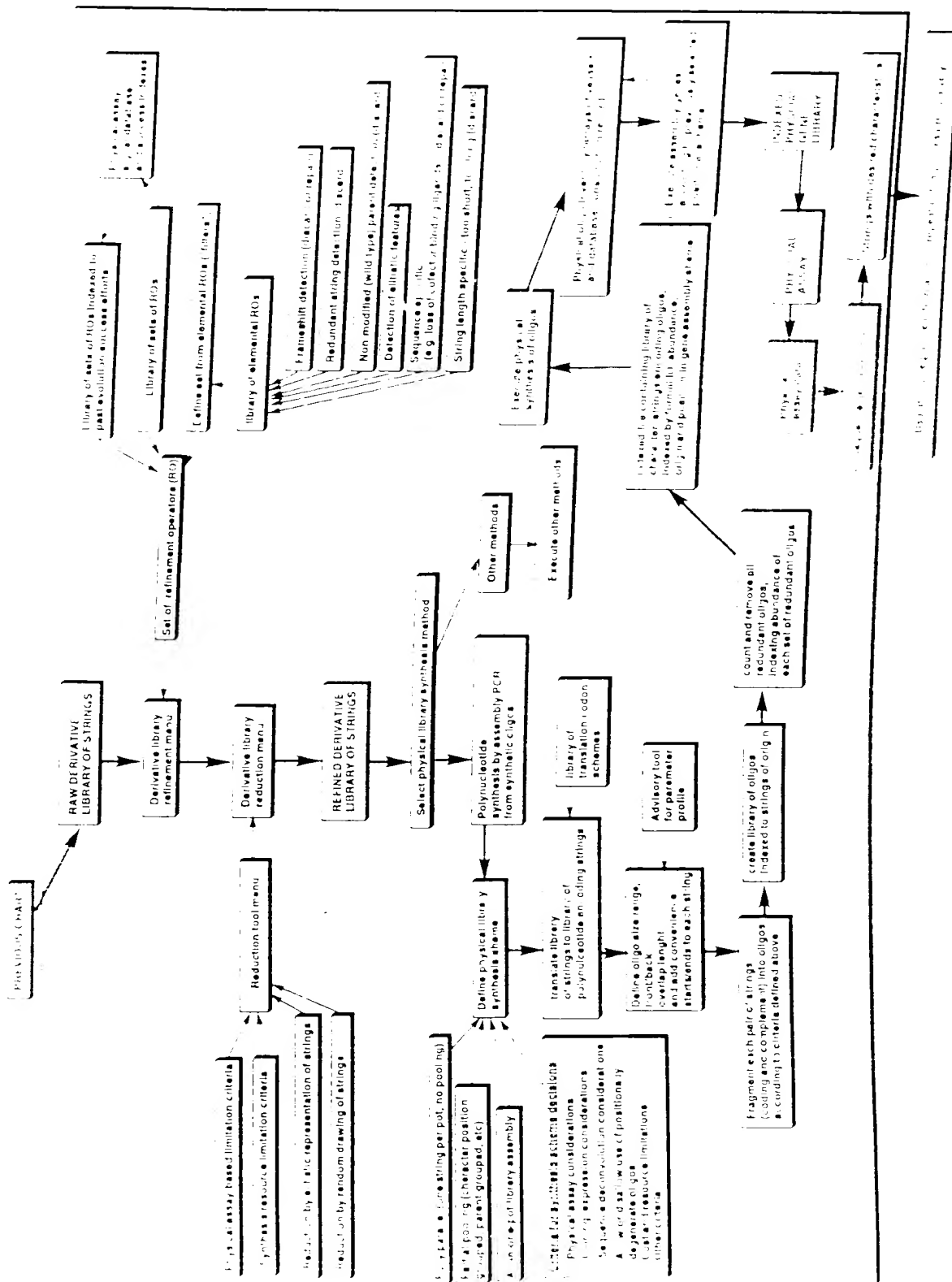


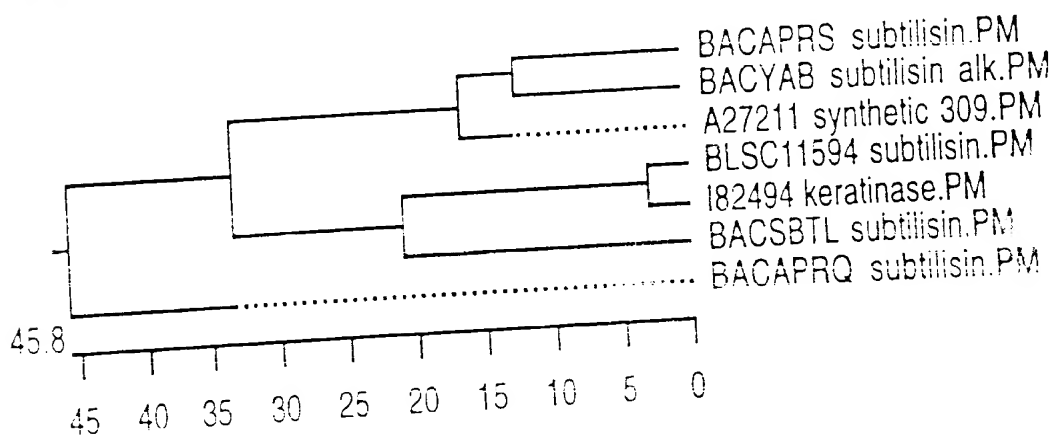
Figure 4

Figure 5

Percent Similarity

	1	2	3	4	5	6	7	
1		62.1	81.4	57.6	81.8	56.1	59.1	1
2	50.5		61.0	64.9	59.5	58.2	60.8	2
3	21.0	52.0		54.6	78.4	50.6	53.2	3
4	54.4	63.3	62.3		52.0	64.6	67.9	4
5	20.5	54.9	25.1	65.6		53.9	56.5	5
6	58.6	56.6	72.2	44.2	63.4		94.9	6
7	52.5	51.4	66.0	38.5	57.8	4.9		7
	1	2	3	4	5	6	7	

A27211 synthetic 309.PM  
 BACAPRQ subtilisin.PM  
 BACAPRS subtilisin.PM  
 BACSBTL subtilisin.PM  
 BACYAB subtilisin alk.PM  
 BLSC11594 subtilisin.PM  
 I82494 keratinase.PM



LEADER REFERENCE										
6-7	---	---	---	---	---	---	---	---	---	---
5-7	---	---	---	---	---	---	---	---	---	---
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4-7	---	---	---	---	---	---	---	---	---	---
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Figure 6

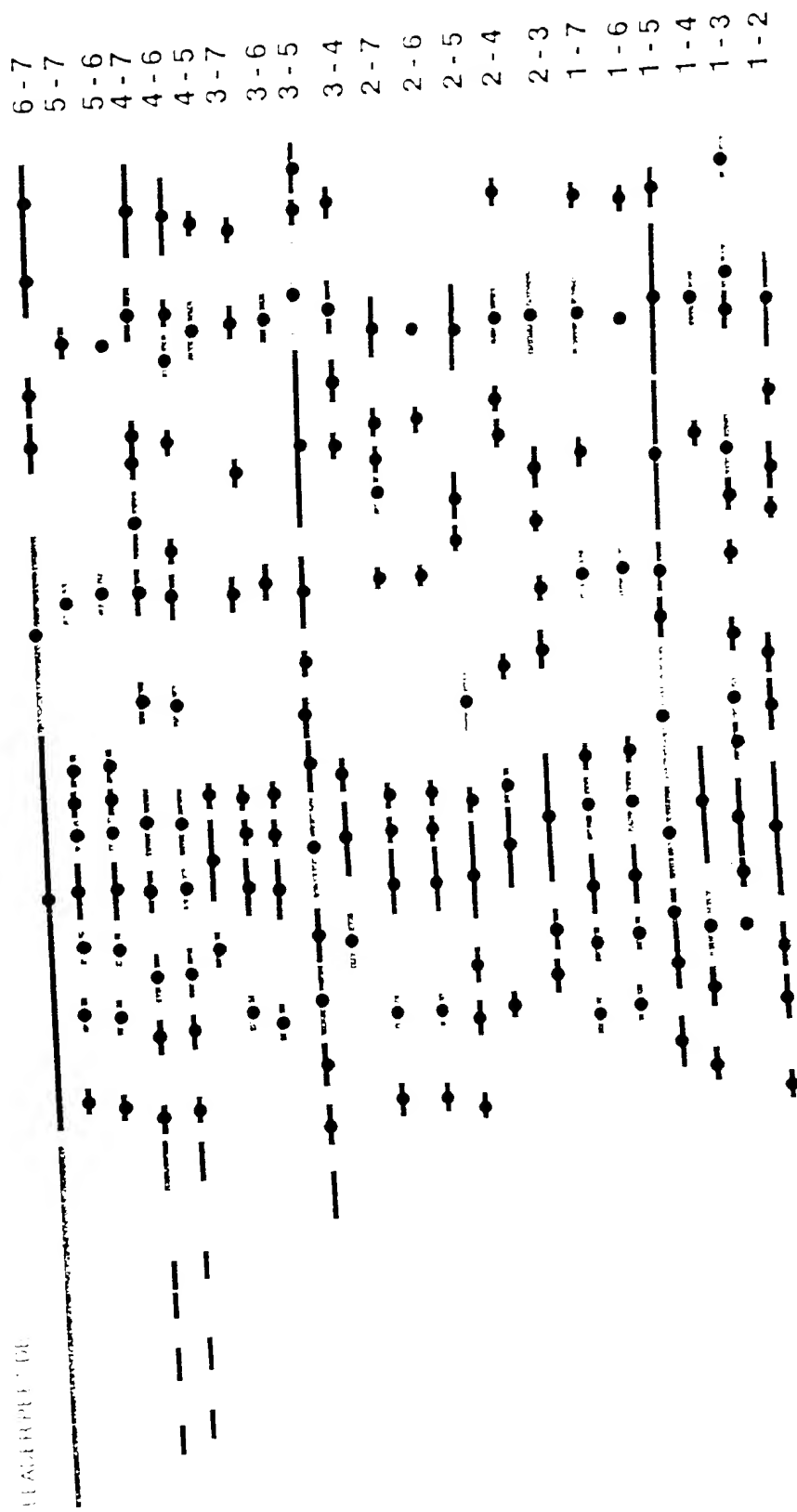


Figure 7

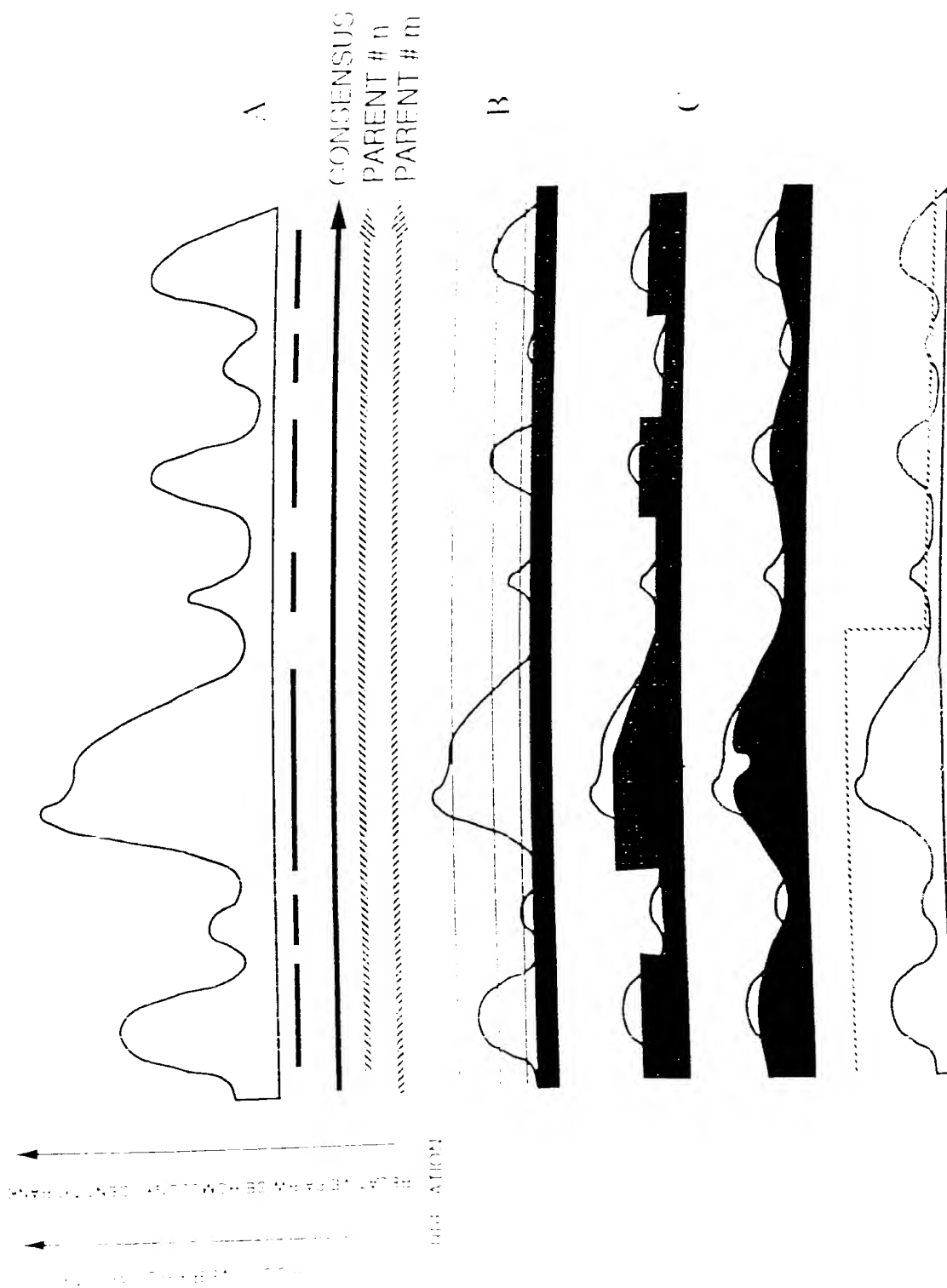


Figure 8



Figure 9

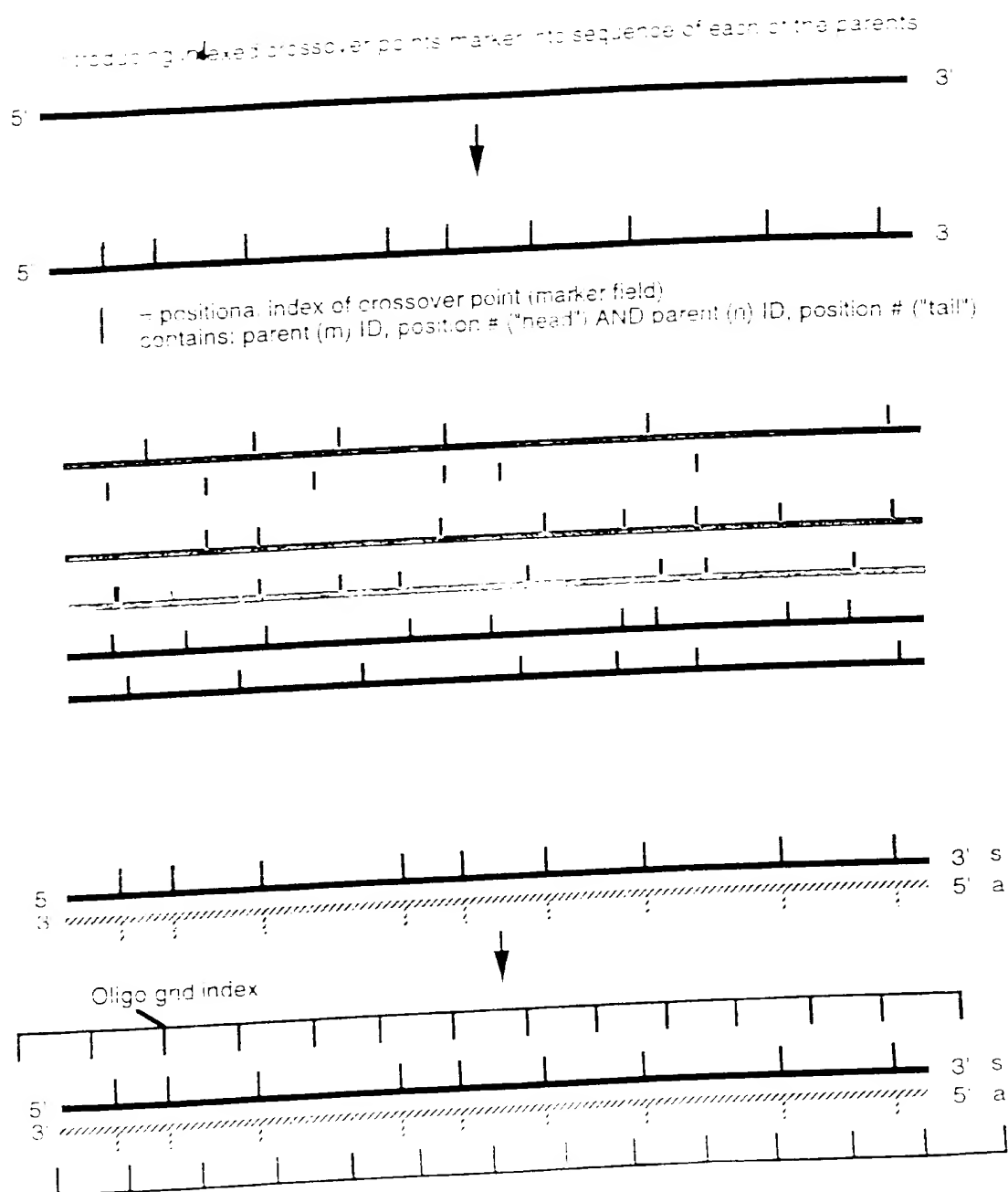
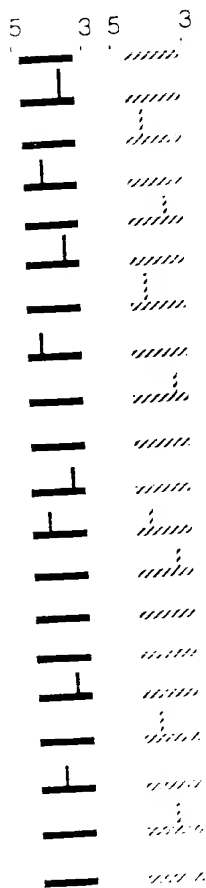
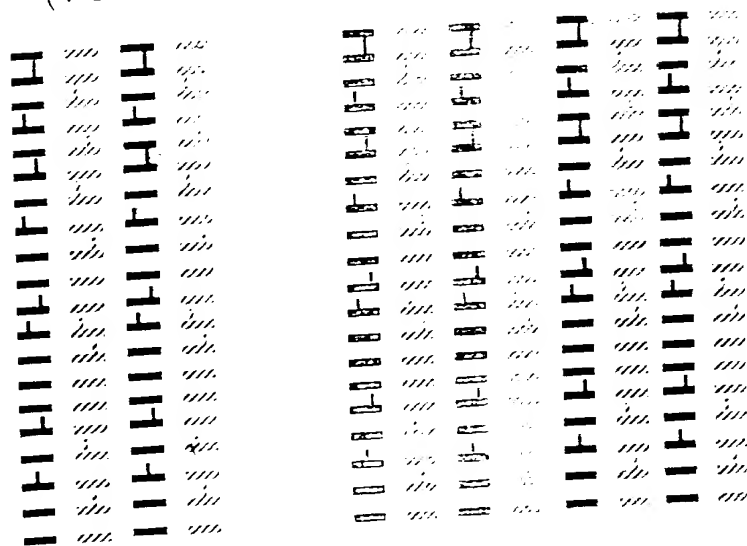


Figure 10

SET OF OLIGOS  
TO ASSEMBLE A PARENT



COMPLETE INVENTORY OF  
OLIGO SEQUENCES  
(TO ASSEMBLE ALL PARENTS)



FIND ALL PAIRS OF PAIRS OF  
OLIGO SEQUENCES WITH  
MATCHING PAIRWISE  
CROSSOVER INDEXES

SUB-INVENTORY OF OLIGOS WITH  
CROSSOVER MARKERS

11 15

Figure 11

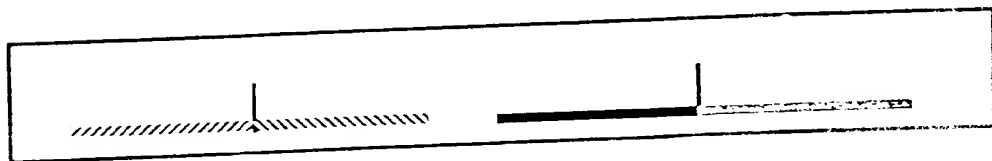
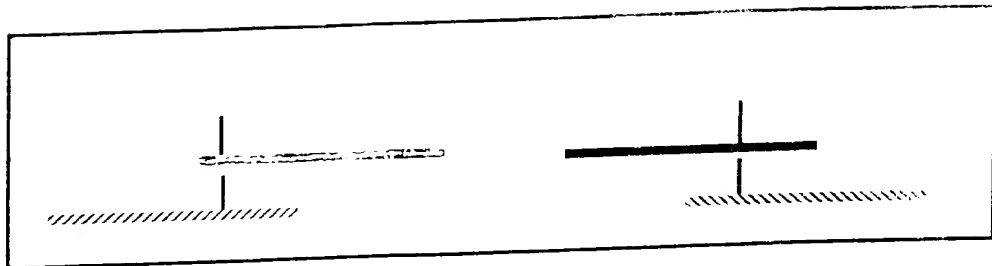
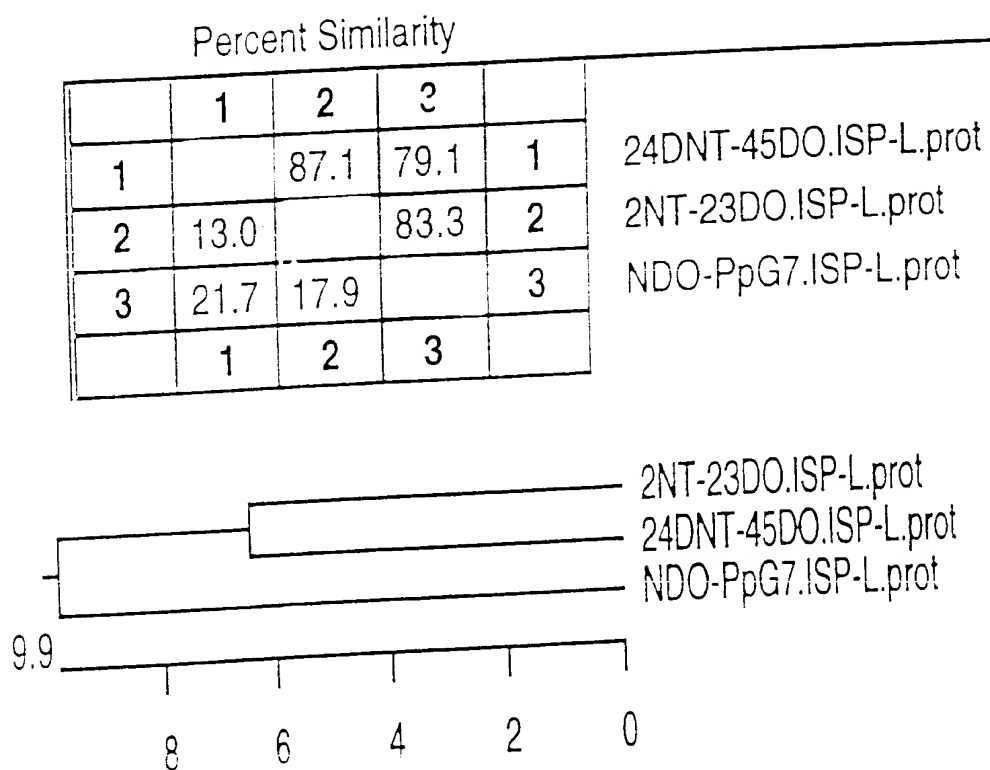


Figure 12



13 15

Figure 13

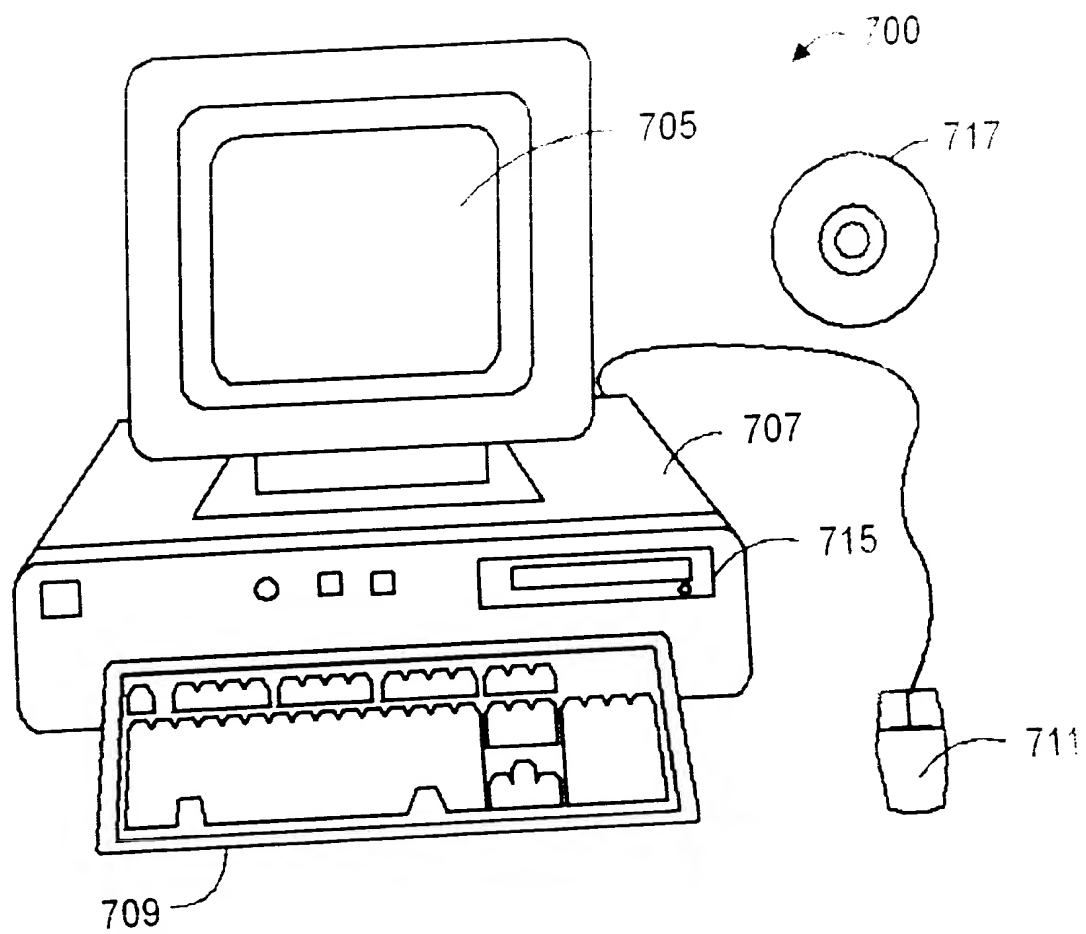
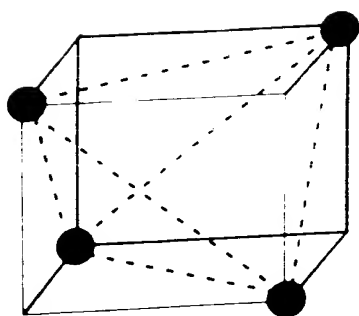


Figure 14



Geometric representation  
Equal distance between  
each nucleotide

A	-1	-1	+1
C	+1	-1	-1
G	-1	+1	-1
T	+1	+1	+1

Numeric representation

15 15

Figure 15

